SDG 15

15.1 Research on Life on Land

Parameter	Data
Scholarly Output	106
Field-Weighted Citation Impact	1.31
Citation Count	728

Between 2022 and 2024, Amrita Vishwa Vidyapeetham made impactful contributions toward achieving United Nations Sustainable Development Goal 15 — Life on Land, through research focused on ecological preservation, biodiversity conservation, and sustainable land management. With 66 scholarly outputs and a Field-Weighted Citation Impact of 1.51, Amrita's research reflects strong global engagement in addressing environmental degradation and promoting ecosystem resilience. The university's studies encompass critical areas such as climate change, freshwater conservation, waste management, and environmental monitoring, underscoring its holistic approach to land and habitat protection. Leveraging emerging technologies like Computer Vision, Aerogel materials, and Fog Computing, Amrita advances innovative solutions for pollution control, land restoration, and sustainable resource utilization. Supported by 19 international collaborations, 2,547 views, and 513 citations, Amrita's SDG 15 research reinforces its commitment to safeguarding terrestrial ecosystems and fostering a sustainable balance between human development and nature conservation.

15.3 Supporting land ecosystems through action

Amrita Promotes Afforestation through Tree Planting and Seed Ball Distribution

An awareness event on tree planting and seed ball distribution was organized on 27 September 2023 to promote afforestation and ecological restoration. Farmers and students collaboratively prepared and distributed seed balls while learning about the importance of trees in improving soil fertility, conserving water, and restoring biodiversity. The initiative aimed to inspire community-led environmental stewardship and strengthen local participation in sustainable land management practices.

AI-Powered 'Amrita Elephant Watch' to Mitigate Human-Wildlife Conflicts

Amrita University's research center, AMMACHI Labs, developed an innovative AI-powered monitoring system called Amrita ElephantWatch to address rising

human–elephant conflict. The system uses real-time multisensory detection and AI-generated alerts to support safer coexistence between people and wildlife. Through strategically placed sensors and camera units, AI models analyze live data to accurately detect and track elephant movements and send instant warnings to communities. The goal is to enhance rural safety, reduce crop and property losses, and protect wildlife through a reliable, early-warning solution.

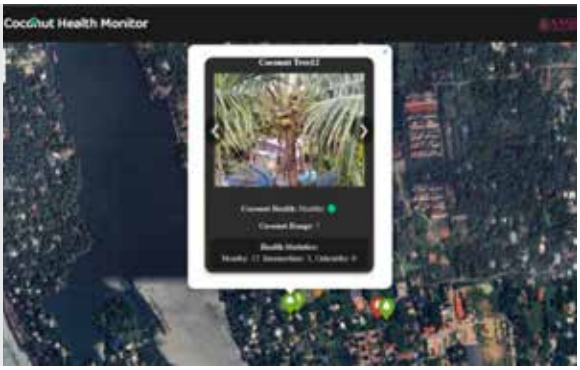
AI-Enabled Sapling Health Monitoring System

The AI-Enabled Sapling Health Monitoring System is a digital platform designed to geo-tag and monitor thousands of mango and cashew saplings across project villages. The system integrates

an interactive map interface where each sapling is visualized along with its AI-predicted health status. Using machine-learning models, saplings are classified as healthy, intermediate, or unhealthy, enabling timely identification of those requiring intervention. The platform also provides village-wise crop counts, detailed sapling information, and multilingual support to ensure accessibility and effective use by local communities.

AI-Enabled Coconut monitoring system

The AI-Enabled Coconut Health Monitoring System is a digital platform designed to map and assess coconut plantations using drone-captured imagery. High-resolution drone data is processed to geo-tag each coconut tree, which is then displayed on an interactive map along with its key attributes. Using advanced AI models, the system evaluates visual



indicators to generate a health status for every tree, enabling timely identification of palms that may require closer attention or care. The platform also provides village-wise coconut counts, detailed tree-level information, and multilingual support, ensuring accessibility and effective use for field teams and local communities.